

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at line 16 on page 2 with the following rewritten paragraph.

The data storage 107 stores the data De provided by the data extractor 103. The data storage 107 also outputs the stored data De to the data decoder 105 in response to a read request signal Sr ~~to be provided therefrom~~ from the data decoder 105.

Please replace the paragraph beginning at line 8 on page 3 with the following rewritten paragraph.

When the data storage 107 is structured by a device ~~being~~ which is susceptible to deterioration from the frequency of data writing thereto, such as hard disk or nonvolatile memory, the same data is repeatedly written thereto more often than necessary to keep the data therein updated. Thus, the life cycle of the data storage 107 gets shorter due to such unnecessary repeated writing.

Please replace the paragraph beginning at line 20 on page 3 with the following rewritten paragraph.

A first object of the present invention is to provide a storage-type data receiver and a storage-type data reception method which are ~~capable of cutting down, to a minimum,~~ minimizing the frequency of data writing that is necessary to keep the storage data updated, and a recording medium on which a storage-type data reception processing program is recorded.

Please replace the paragraph beginning at line 1 on page 4 with the following rewritten paragraph.

A second object of the present invention is to provide a storage-type data receiver and a storage-type data reception method which are capable of keeping data in storage updated while minimizing the frequency of data writing without constantly setting the tuner to an applicable

channel, and a recording medium on which a storage-type data reception processing program is recorded.

Please replace the paragraph beginning at line 8 on page 4 with the following rewritten paragraph.

A third object of the present invention is to provide a storage-type data receiver and a storage-type data reception method which are capable of keeping data in storage updated while minimizing the frequency of data writing without constantly supplying power to constituents which are necessary to receive data, and a recording medium on which a storage-type data reception processing program is recorded.

Please replace the heading at line 16 on page 4 with the following rewritten heading.
DISCLOSURE SUMMARY OF THE INVENTION

Please replace the paragraph beginning at line 24 on page 10 with the following rewritten paragraph.

To describe the present invention in detail, the description is made with reference to the accompanying drawings. ~~Next below~~ Hereinafter, a storage-type data receiver according to a first embodiment of the present invention is described in detail with reference to FIG. 1, FIG. 2, and FIG. 3, a storage-type data receiver according to a second embodiment is described in detail with reference to FIG. 4 and FIG. 5, a storage-type data receiver according to a third embodiment is described in detail with reference to FIG. 6 and FIG. 7, and a storage-type data receiver according to a fourth embodiment is described in detail with reference to FIG. 8 and FIG. 9.

Please replace the paragraph beginning at line 3 on page 12 with the following rewritten paragraph.

The data presenter 19 is exemplarily structured by an indicator such as a display device or a printing device ~~such as (e.g., a printer)~~, and presents the details of the decoded data Dd provided by the data decoder 5.

Please replace the paragraph beginning at line 17 on page 14 with the following rewritten paragraph.

Once the storage-type data receiver Arp1 is started, ~~first in the tuner 1~~, a broadcast signal in a user predesignated channel frequency band is first selected in the tuner 1 out of the broadcast wave Srf received by the antenna, and then, the video signal Sv included therein is outputted to the data extractor 3. The data extractor 3 extracts the data De from the video signal Sv. The data decoder 5 decodes the data De to generate the decoded data Dd. The data decoder 5 outputs the generated decoded data Dd to both the next-update information extractor 7 and the data presenter 19. The data presenter 19 presents the details of the decoded data Dd.

Please replace the paragraph beginning at line 25 on page 15 with the following rewritten paragraph.

When the current time T (ict) does not coincide with the next-update time (inu), the determination is No, and then the processing in ~~this step~~ step 40 and step 50 is repeated. Then, when the current time T (ict) coincides with the next-update time (inu), the determination becomes Yes and the procedure goes to the next step S60.

Please replace the paragraph beginning at line 6 on page 16 with the following rewritten paragraph.

In step S60, the storage controller 13 generates the storage control signal Sc, and controls the data storage 17 so as to store the decoded data Dd provided by the data decoder 5. In detail,

the decoded data Dd already recorded in the data storage 17 is updated by another decoded data Dd newly-provided by the data decoder 5 at the next-update time T (inu). To confirm the storage completion of the decoded data Dd, that is, recording the completion of recording to the data storage 17, for example, an end of the decoded data Dd is referred to. The procedure then goes to the next step S70.

Please replace the paragraph beginning at line 24 on page 17 with the following rewritten paragraph.

The structure of the data receiver according to the second embodiment of the present invention is described by referring to FIG. 2 4. Herein, this embodiment is suitable for an environment where data to be stored is distributed from one of a plurality of data sources at a given time.

Please replace the paragraph beginning at line 10 on page 18 with the following rewritten paragraph.

Based on the judgement determination signal Sj (i.e., the result of the comparison between the current date/time information Ict and the next-update information Inu) provided by the comparator, the tuner controller 23 provides the tuner 1 with a tuning channel signal St indicating a frequency band of a broadcast channel to tune to among the received broadcast wave Srf. The tuner 1 outputs, in accordance with the tuning channel signal St, the video signal Sv obtained from the broadcast wave Srf of the predetermined channel to the data extractor 3.

Please replace the paragraph beginning at line 17 on page 18 with the following rewritten paragraph.

Next, by referring to the flowchart shown in FIG. 5, it is described how the storage-type data receiver Arp2 of this embodiment is operated to receive and process data. Note that, the flowchart of this embodiment is additionally provided with step S4 before step S20 found in the flowchart of the first embodiment shown in FIG. 3, and step S54 between steps S50 and S60

thereof. Hereinafter, these additionally-provided steps S4 and S54 are more ~~focused~~ fully described in the operational description ~~next~~ below.

Please replace the paragraph beginning at line 1 on page 19 with the following rewritten paragraph.

Once the storage-type data receiver Arp2 is started, ~~first of all, in step S4,~~ the user first designates a desired channel in step S4 for reception to the tuner controller 23. The tuner controller 23 records the user designated channel and also generates, for output to the tuner 1, the tuning channel signal St which indicates ~~that the~~ user designated channel.

Please replace the paragraph beginning at line 21 on page 19 with the following rewritten paragraph.

In step S54, the tuner controller ~~part~~ 23 outputs the tuning channel signal St to the tuner 1 in response to the determination signal Sj. The tuner 1 is controlled by the tuning channel signal St in such a manner as to tune itself with the channel designated by the user in step S4. As a result, the decoded data Dd included in the video signal Sv distributed on the user desired broadcast channel is provided by the data decoder 5. Thereafter, steps S60, S70, S30, S40, and S50 as described in the foregoing are repeated to be ready for the next update of the data De.

Please replace the paragraph beginning at line 5 on page 20 with the following rewritten paragraph.

As described in the foregoing, according to the storage-type data receiver Arp2 of this embodiment, only when the data distributed from one arbitrary data source out of the ~~plural~~ plurality of data sources is updated, the tuner 1 is tuned with a broadcast channel corresponding to that arbitrary data source, and thus the decoded data Dd stored in the data storage 17 is updated to be the ~~latest~~ most recent decoded data Dd.

Please replace the paragraph beginning at line 25 on page 20 with the following rewritten paragraph.

A storage-type data receiver Arp3 of this embodiment is additionally provided with a power supply controller 25 between the comparator 11 and the power supply 21 found in the storage-type data receiver Arp2 shown in FIG. 4 to connect the comparator 11 and the power supply 21. Further, a data reception processing program contained in the ROM 40B is slightly different from the one in the storage-data receiver Arp2.

Please replace the paragraph beginning at line 13 on page 21 with the following rewritten paragraph.

Next, by referring to the flowchart in FIG. 7, it is described how the storage-type data receiver Arp3 of this embodiment is operated to receive and process data. Herein, the flowchart of this embodiment is additionally provided with step S22 between steps S20 and S30 found in the flowchart of the second embodiment shown in FIG. 5, and step S52 between steps S50 and S54 thereof. Note that, the procedure after step S70 goes not to step S30 but to newly-provided step S22. These additionally-provided steps S22 and S52 are more ~~focused~~ fully described in the operational description ~~next~~ below.

Please replace the paragraph beginning at line 5 on page 23 with the following rewritten paragraph.

As is described in the foregoing, according to the storage-type data receiver Arp3 of this embodiment, only when the data distributed from one arbitrary data source out of the ~~plural~~ plurality of data sources is updated, the power is supplied to the distribution data source and the data storage part, and the tuner 1 is tuned to a channel corresponding to the desired data source, whereby the decoded data Dd is stored in the data storage 17.

Please replace the paragraph beginning at line 3 on page 25 with the following rewritten paragraph.

Next, by referring to the flowchart shown in FIG. 9, it is described how the storage-type data receiver Arp4 of this embodiment is operated to receive and process data. Note that, the flowchart of this embodiment is additionally provided with step S2 before step ~~S4R~~ S4 in the flowchart of the third embodiment shown in FIG. 7, step S6 between steps ~~S4R~~ S4 and S10, and step S56 between steps S54 and S60. Further, step S4 is replaced with step S4R. These additionally-provided steps S2, S4R, S6, and S56 are more ~~focused~~ fully described in the operational description ~~next~~ below.

Please replace the paragraph beginning at line 19 on page 25 with the following rewritten paragraph.

In step S4R, based on the program identification information Ip registered in step S2, the tuner controller 23 outputs the tuning channel signal St which indicates the user designated channel to the tuner 1. Then, the procedure goes to the next step S6.

Please replace the paragraph beginning at line 13 on page 26 with the following rewritten paragraph.

In step S56, the storage program extractor 27 determines, in a similar manner to the processing in step S6, whether or not the currently distributed program is the program that is designated (registered) in step S2. When the determination becomes Yes ~~when that~~ the desired program is distributed, ~~and~~ the procedure goes to the next step S60. Thereafter, steps S60, S70, S22, S30, S40, and S50 ~~is~~ are repeated to be ready for the next update of the data Dd.

Please replace the paragraph beginning at line 16 on page 27 with the following rewritten paragraph.

In the above-described ~~embodiment~~ embodiments, the data decoder 5, the next-update information extractor 7, the next-update information recorder 9, the comparator 11, and the

storage controller 13 are structured to be implemented via software[[],]. Further, the data decoder 5, the next-update information extractor 7, the next-update information recorder 9, the comparator 11, and the storage controller 13 may be partially or wholly structured to be implemented via hardware.

Please replace the paragraph beginning at line 24 on page 27 with the following rewritten paragraph.

In the above-described ~~embodiment~~ embodiments, although the description is made for a case where the present invention is applied to the data receiver and the data reception method of a type receiving the broadcast-type service, the present invention can be applied to the data receiver, e.g., personal computer, and the data reception method of a type receiving the communication-type service such as the Internet.